Carolyn Casey
07/22/02 12:15 PM

To: bacutler@loureiro.com
cc:
Subject: final comments are attached

Sorry, got you address wrong the first time.

----- Forwarded by Carolyn Casey/R1/USEPA/US on 07/22/02 12:14 PM -----

Carolyn Casey
07/22/02 11:46 AM

To: rnave@macdermid.com, TCharlton@macdermid.com, kmclarke@loureiro.com, bcuttler@loureiro.com
cc:
Subject: final comments are attached

Not planning to send anything more formal than this. I believe I've made the changes as we discussed on the phone calls. Please let me know if there are any remaining questions
Thanks
Carolyn

CSMrevfin.wpd

Technical Review of the Conceptual Site Model and Screening Levels
MacDermid Incorporated
526 Huntingdon Avenue Waterbury, CT

General Comments

1. All depth to water measurements for all wells should be summarized in a table and provided to EPA. MacDermid claims that the depth to groundwater is approximately 30 feet below grade but there has been no data provided to support that claim.

2. The plan should separate the work that is proposed to meet the two EIs and separate the two screening level processes proposed to determine if each of the two EIs have been met. Different screening criteria should be used for the HEC EI than the GWRC EI.

Specific Comments
Section 4.1.2 Indoor Air

3. Please clarify why "...there is no potential pathway for the volatilization of contaminants in Site soil into surrounding air." Contamination in site groundwater is likely from an initial release to soil. Although volatile organic compounds were only detected in soils that are not beneath buildings, there are several AOCs within the building that have not been adequately addressed. For example, no soil samples have been collected in the immediate vicinity of AOC-G, the hazardous waste storage area, or in some areas within AOC-D (pilot plant/main mixing area) and AOC-E (former lagoons/WWTS/bulk waste unloading and storage/copper etchant recycling and spill area/acid tank farm). Since these soils are beneath buildings and as long as the buildings remain in place there is no direct exposure risk, but this does not address a potential indoor air inhalation risk. Even if groundwater is 30 feet below grade, volatilization from contaminated soils may create an indoor air risk.

4. Table 1 and figure 2 do not show that an indoor air screen is needed or will be completed for the off-site resident, yet this paragraph states that it will be done. Conversely, this section does not discuss an indoor air screen for workers on-site yet table 1 and figure 2 indicate the screen is needed and will be completed for this receptor. Please revise as appropriate so that the figures and text create a clear picture of the potential receptors and screening level process. Evaluation of the indoor air pathway is needed for both of these receptors.

Section 4.1.3 Surface Water
page 4-2

5. It is not clear if this section is proposing to compare surface water sample results to the Surface Water Protection Criteria (SWPC) or to the lower of the aquatic life or human health protection criteria (CTDEP Numerical Water Quality Criteria) mentioned in the

second paragraph of this section. Table 1 does not provide any further clarification. Although it is obvious that some of the RSR SWPC are 10 times the lower of the aquatic life or human health criteria this is not always the case, particularly for VOCs.

It would not be an appropriate or necessarily "a conservative evaluation" to compare surface water analytical results to the SWPC. These criteria are for screening groundwater for the protection of surface water. Please provide clarification and/or appropriate screening levels.

Page 4-3

6. The first paragraph states that "...an evaluation of groundwater quality leaving the Site is necessary first to determine if a potential impact from contaminated groundwater discharging to surface water is likely." This would be appropriate for meeting the EIs as long as no direct discharges still exist. For a final remedy, direct releases would also need to be considered; a determination of impact to the streams or sediments cannot be made based solely on a potential impact from contaminated groundwater. Documentation shows releases occurred directly to surface water via storm drains and the waste-water treatment system sewer.

Section 4.1.5
Page 4-4

7. In the second paragraph, please clarify what the last sentence means and/or correct the typographic errors: "...detected consistently in sediment samples collected from on-site surface water samples..."

8. The last paragraph in this section should discuss the "release assessment" and any remedy that may have taken place. The 1994 data shows elevated levels of copper in sediments (likely from the copper etchant release) and unless some remediation and post remediation sampling took place, additional evaluation/sampling is warranted at some point in the future. For the purposes of the EIs, this should at least be noted. Again, for a final remedy, basing the need for sediment and surface water sampling on groundwater discharges alone is not appropriate since other release pathways to surface water existed.

Table 1

9. The Work Plan should be perfectly clear as to which criteria are being used for screening each media. For sediment, the table states that a comparison will be made to site screening levels yet "site screening levels" has not been defined. Also, for surface water screening, the table states that surface water and groundwater results will be compared to the CTDEP RSR. Please clarify by listing the specific RSR criteria.

10. Screening surface water data against the CTDEP SWPC for groundwater is not appropriate to evaluate an off-site sampler or recreator's dermal/incidental ingestion risk. The SWPC are for screening groundwater for the protection of surface water and have a

dilution factor applied to account for dilution of contaminants in groundwater prior to reaching the surface water body. The Maximum Contaminant Levels would be appropriate and conservative numbers to use for an initial screen for dermal risk.

11. Under indoor air inhalation, residents and not excavating laborers should have a "YES" for this pathway.

Figure 2

14. Some of what is provided here conflicts with what is presented in Table 1. For example, the adult recreator should have a pathway to surface water and sediment, not surface soil. An indoor worker also has an exposure to surface soil as shown in Table 1.

15. Please provide the distinction between an indoor worker and maintenance worker or delete one of the two.

16. The off-site resident should also have a pathway for indoor air.

Drawing 1

17. Unusual abbreviation should be spelled out (e.g., compounds detected in groundwater-ACT, SBBZ, MCM).

18. Units of measurement should be provided for the contaminant concentrations shown here for groundwater and soil.

Technical Review of the Voluntary Corrective Action Program Work Plan
MacDermid Incorporated
526 Huntingdon Avenue Waterbury, CT

General Comments

1. A previous proposal included the installation of 6 monitoring wells and 2 piezometers. Have these wells and piezometers been installed and if not, why aren't they included in the current proposal? In addition, EPA previously discussed with MacDermid the need for better monitoring well coverage along Gear street, between the facility property and the adjacent residential properties. Please clarify why no additional wells are proposed for installation along Gear Street and/or explain how the off-site indoor air pathway will be adequately evaluated.

2. Several comments contained in EPA's February 11, 2002 letter have not been addressed either with a written response or as work proposed within the work plan. The following are some general and specific examples:

   Numerous comments regarding inaccurate or incomplete data summary tables.

   General comment 9 - Soil contamination should be included as a data gap for many AOCs because either no data exists or very limited data exists (one sample in many cases). Although a pathway may not exist for some of these AOCs as the areas are covered w/pavement or buildings, without the history of a unit (have the floor trenches always discharged to the WWTS and have they always been epoxy coated?), the data gaps still exist. For example, at AOC-D: concrete trenches are not impermeable and are often times the source of sub-slab soil contamination, particularly those that may remain wet for periods of time due to the nature of the processes. Other examples include AOC-A, AOC-F, AOC-K.

   Additional comment 11 - Again, it is necessary to obtain information on the use of water supply wells, industrial water supply wells and remediation wells to evaluate potential exposure routes, potential human health impacts and to evaluate any potential effects on groundwater and contaminant migration that pumping these wells may have.

   Any additional field work that is needed should, at a minimum, be reflected in a revised schedule. Revised data summary tables should be included in the EI documentation.

3. Please submit the surface water and sediment sampling SOPs for review prior to conducting any such sampling.

4. Surface water and sediment samples should be collocated. The schedule shows that these

are two distinct sampling events with surface water sampling starting 3 days after sediment sampling.

5. Additional information is needed regarding the surface water and sediment sampling (e.g., what measurements will be taken in the field and what are the constituents of concern?)